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NOTICE OF ALLOWANCE AND FEE(S) DUE

23599 7590 12/04/2009

MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD.

SUITE 1400 ARLINGTON, VA 22201 EXAMINER
ANDERSON PERECCA I

ART UNIT PAPER NUMBER

1626

DATE MAILED: 12/04/2009

 APPELCATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKIET NO.
 CONFIRMATION NO.

 10/567.848
 02/10/2006
 Direct Dorsch
 MERCK-3121
 5899

TITLE OF INVENTION: PROCESS FOR THE PRODUCTION OF N-ARYLMORPHOLINONES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/04/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth	of transmitting the 1330 ig the Patent, advance or ierwise in Block 1, by (a	rders and notification of r a) specifying a new corres	naintenance fees wil spondence address; a	I be mailed to the curren nd/or (b) indicating a sep	t correspondence address as varate "FEE ADDRESS" for
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23599 MILLEN, WH 2200 CLARENI SUITE 1400 ARLINGTON,	OON BLVD.	^{/2009} BRANIGAN, P.C	I bo	Certify	ficate of Mailing or Tran	smission g deposited with the United st class mail in an envelope above, or being facsimile date indicated below.
AKLINGTON,	VA 22201					(Depositor's name)
			<u> </u>			(Signature)
						(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	/	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,848	02/10/2006		Dieter Dorsch		MERCK-3121	5899
TITLE OF INVENTION	: PROCESS FOR THE I	PRODUCTION OF N-AR	RYLMORPHOLINONES			
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE I	FEE TOTAL FEE(S) DU	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/04/2010
EXAM	INFP	ART UNIT	CLASS-SUBCLASS	1		
ANDERSON.		1626	544-170000	J		
1. Change of corresponde			2. For printing on the p	atent front page, list		
CFR 1363). Change of correspondence address (or Change of Correspondence Address form PTOVSB/122) attached. These Address' indication for "Fee Address' Indication form PTOVSB/47; Rev 03-02, or more recent) attached. Use of a Customer Number is required.		nge of Correspondence	(1) the names of up to 3 registered patent attorneys coagest of Rajlentatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is instead, no name will be printed.			
PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI	less an assignee is ident h in 37 CFR 3.11. Comp GNEE		(B) RESIDENCE: (CITY	atent. If an assignee assignment. and STATE OR CO	UNTRY)	document has been filed for
4a. The following fee(s) Issue Fee Publication Fee (N	vo small entity discount p		o. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038 i	s attached.	eficiency, or credit any an extra copy of this form).
5. Change in Entity Sta	tus (from status indicate is SMALL ENTITY statu		b. Applicant is no lon	ger claiming SMALL	ENTITY status. See 37 C	FR 1.27(g)(2).
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepted tes Patent and Trademark	d from anyone other than t Office.	he applicant; a regist	ered attorney or agent; or	he assignee or other party in
Authorized Signature				Date		
Typed or printed name			Registration No.			
This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the O NOT SEND FEES OR (on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	retain a benefit by the imated to take 12 mi idual case. Any com er, U.S. Patent and To D'THIS ADDRESS.	public which is to file (an nutes to complete, includi ments on the amount of t rademark Office, U.S. De SEND TO: Commissioner	d by the USPTO to process) ng gathering, preparing, and ime you require to complete partment of Commerce, P.O. for Patents, P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 12/04/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,848	02/10/2006	Dieter Dorsch	MERCK-3121	5899
23599 7	590 12/04/2009		EXAM	IINER
MILLEN, WHIT	TE, ZELANO & BRA	ANDERSON, REBECCA L		
	2200 CLARENDON BLVD.			PAPER NUMBER
SUITE 1400 ARLINGTON, V.	A 22201		1626	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 668 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 668 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

	Application No.	Applicant(s)	
Examiner-Initiated Interview Summary	10/567,848	DORSCH ET AL.	
Examiner-initiated interview Summary	Examiner	Art Unit	
	REBECCA L. ANDERSON	1626	
All Participants:	Status of Application: allo	<u>owed</u>	
(1) REBECCA L. ANDERSON.	(3)		
(2) <u>Jennifer Branigan</u> .	(4)		
Date of Interview: 30 November 2009	Time: <u>10:52am</u>		
Type of Interview: ☐ Telephonic ☐ Video Conference ☐ Personal (Copy given to: ☐ Applicant ☐ Applic Exhibit Shown or Demonstrated: ☐ Yes If Yes, provide a brief description: ☐ No	cant's representative)		
Part I.			
Rejection(s) discussed: n/a			
Claims discussed: 15-28			
Prior art documents discussed: n/a			
Part II. SUBSTANCE OF INTERVIEW DESCRIBING THE GEN Applicants' representative agreed to an examiner's amendmen the specification.			
Part III.			
 It is not necessary for applicant to provide a separate directly resulted in the allowance of the application. T of the interview in the Notice of Allowability. It is not necessary for applicant to provide a separate did not result in resolution of all issues. A brief summer 	he examiner will provide a writte record of the substance of the	en summary of the substance interview, since the interview	
/Rebecca L Anderson/ Primary Examiner, Art Unit 1626	(Applicant/Applicant's Representat	ive Signature – if appropriate)	

	Application No.	Applicant(s)	
	1	1 ,,	
Notice of Allowability	10/567,848 Examiner	DORSCH ET AL. Art Unit	
	REBECCA L. ANDERSON	1626	
— The MAILING DATE of this communication app. All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-83) NOTICE OF ALLOWABILITY is NOTA GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this or other appropriate communical IGHTS. This application is subject	application. If not included ion will be mailed in due co	l ourse. THIS
1. This communication is responsive to the amendment filed	30 July 2009.		
2. The allowed claim(s) is/are 1-6 and 8-14.			
 Acknowledgment is made of a claim for foreign priority ut a)	nder 35 U.S.C. § 119(a)-(d) or (f).		
 Certified copies of the priority documents have 	e been received.		
Certified copies of the priority documents have	e been received in Application No	·	
Copies of the certified copies of the priority do	ocuments have been received in the	is national stage application	on from the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		oly complying with the requ	irements
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which giv 			TICE OF
5. CORRECTED DRAWINGS (as "replacement sheets") must	st be submitted.		
(a) including changes required by the Notice of Draftspers	son's Patent Drawing Review (PT	O-948) attached	
1) Thereto or 2) to Paper No./Mail Date			
(b) including changes required by the attached Examiner Paper No./Mail Date	's Amendment / Comment or in th	e Office action of	
Identifying Indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the state of the stat			ack) of
DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT			ote the
Attachment(s)	5 DN-fine of left-one	I Datast Assisation	
 Motice of References Cited (PTO-892) Motice of Draftperson's Patent Drawing Review (PTO-948) 	 5. ☐ Notice of Information 6. ☑ Interview Summation 	* *	
	Paper No./Mail I	Date <u>20091201</u> .	
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 	7. 🛛 Examiner's Amer	ndment/Comment	
Examiner's Comment Regarding Requirement for Deposit of Biological Material	_	ment of Reasons for Allow	rance
	9. Other		
/Rebecca L Anderson/ Primary Examiner, Art Unit 1626			

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Art Unit: 1626

DETAILED ACTION

Claims 1-6 and 8-14 are currently pending in the instant application, appear allowable over the prior art of record and have been renumbered as claims 1-13.

Applicants' amendment filed 30 July 2009 has overcome the 35 USC 112 1st paragraph rejection. Accordingly, the examiner has searched and examined claims 1-6 and 8-14 in their entirety according to MPEP 803.02. The objection to the claims as containing non-elected subject matter is therefore withdrawn.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jennifer Branigan on 30 November 2009.

The application has been amended as follows:

- Amend the first page of the specification, on the line following the title, by inserting the following continuing data:
 - -- This application is a 371 of PCT/EP04/07938 filed July 16, 2004.--
 - 2 Cancel claims 15-28

Reasons for Allowance

The following is an examiner's statement of reasons for allowance. This invention relates to a process of preparing formula I by reacting a compound of the formula II

Application/Control Number: 10/567,848

Art Unit: 1626

which has a pKa value of less than or equal to 3 with 5-chloro-2,3-dihydro-1,4-dioxin to give a compound of the formula III which is then cyclised to give a compound of the formula II. The novel and nonobvious aspect of this invention involves reacting formula II which has a pKa value of less than or equal to 3 with 5-chloro-2,3-dihydro-1,4-dioxin to give a compound of the formula III. The closest prior art of record fails to teach or suggest the instantly claimed invention as applicants have surprisingly found that arylamines, so long as they have a pKa of less than or equal to 3, also react with 2-chlorodioxene to give 2-(2-chloroethoxy)acetamides. This is unexpected since amines such as ammonia, benzylamine, 8-amino-quinoline or 4-methoxyaniline do not react or react very poorly, see page 6 of the instant specification.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday from 6:00am until 2:30pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699. Art Unit: 1626

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Rebecca Anderson/ Primary Examiner, AU 1626

Rebecca Anderson Primary Examiner Art Unit 1626, Group 1620 Technology Center 1600 1 December 2009